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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,510	08/17/2001	Yasuhiro Fukuzaki	IS11-002	6297

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EXAMINER

ROSENBERGER, RICHARD A

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,510

Applicant(s)

FUKUZAKI, YASUHIRO

Examiner

Richard A Rosenberger

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 6) ☐ Other:

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsikos (US 4,507,557).

Tsikos shows a position detecting device of the type claimed that has a flat board (10) having a position detecting area. There are optical units (36, 38) in at least two positions adjacent to the position detecting area of the flat board; the signals therefrom are used to calculate the detected position by triangulation (column 5, line 51). Each optical unit comprises a one-dimensional light receiving element array having a plurality of light receiving elements (column 5, line 38-39). Figure 7 of the reference shows a circuit with a sequential output circuit outputting sequentially an analog value of an output of the one-dimensional light receiving array (the 8-BIT ADDRESS COUNTER 46 and D OUT of the dram imagers). As set forth in the patent, the output of the DRAM imager is the charge on a capacitor (column 5, lines 29-31 and 34-35; this will produce an analog signal since the capacitor need not discharge totally depending upon the light level. There is a clock circuit (42) which supplies a timing signal to the sequential output circuit. Built into the 8-BIT LATCH is an output level comparing circuit which judged whether the output from the sequential output circuit is higher or lower than a

predetermined voltage level (thus "deciding" whether to latch or not), and converting the analog signal into a digital timing signal; the address which is latched into the latch circuit is a direct indication of the time at which the output of the DRAM IMAGER triggered the latch, and the value latched is a digital value. The latch itself is a "variation timing measuring circuit" which obtains, from the ADDRESS COUNTER, a variation in timing of the output level comparing circuit. The pointed position is determined by obtaining the incident angle of the pointing device (see θ_1 and θ_2 in figure 1).

The device of Tsikos has light source means (LEDs 16 and 18) adjacent the optical unites (see figure 4) and retroreflective means (14) for retroreflecting light from the light source means. The retroreflecting means is on a frame (12; see column 4, line 28). The variation timing measuring circuit of figure 7 detects both a start timing and end timing of the light or shadow being detected (one in latch 84, the other in latch 86) to determine the center of the light or shadow. Figure 6 shows a filter circuit (see also column 7, lines 3-6) which as describes is a low-pass filter; column 7, lines 49-51, teaches that the low pass filtering is present in the embodiment of figure 7.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsikos (US 4,507,557).

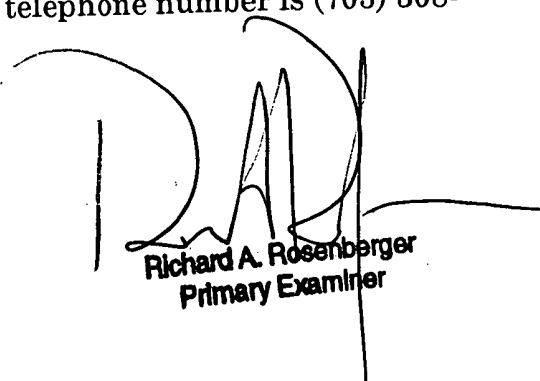
See above. It would have been obvious to use other known light detecting arrays capable of having the data clocked out in a similar manner as the DRAM if Tsikos, as the light detector arrays of the reference with appropriate circuitry; it is the detection of the position of the edges of the shadows, and not the particular detector arrays or the details of the circuitry, that gives the arrangement of the reference its utility.

5. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804. The examiner's normal work schedule is 8:00 to 4:30 eastern time, Monday through Friday.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger
23 June 2003



Richard A. Rosenberger
Primary Examiner